

FIG. 1 (Prior Art)

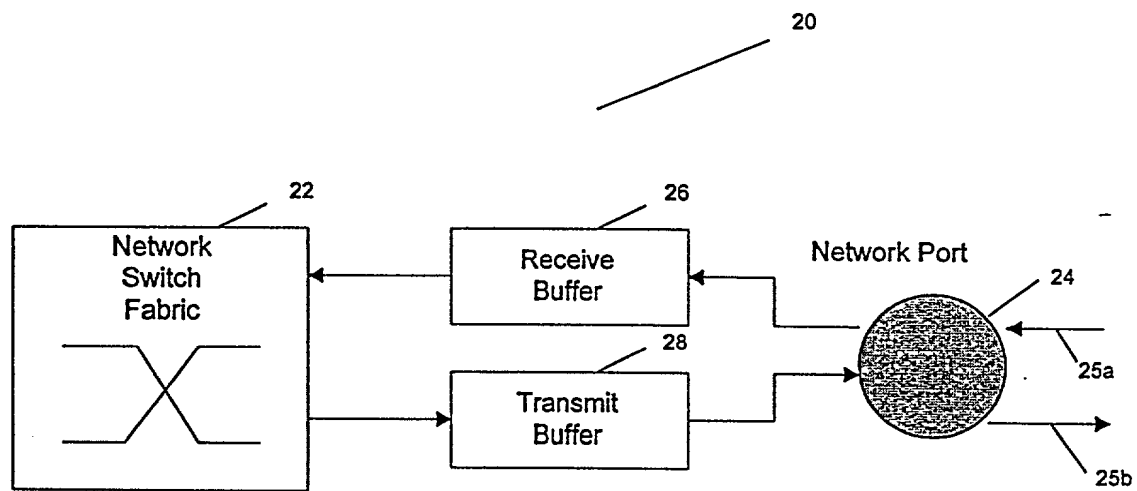


FIG. 2 (Prior Art)

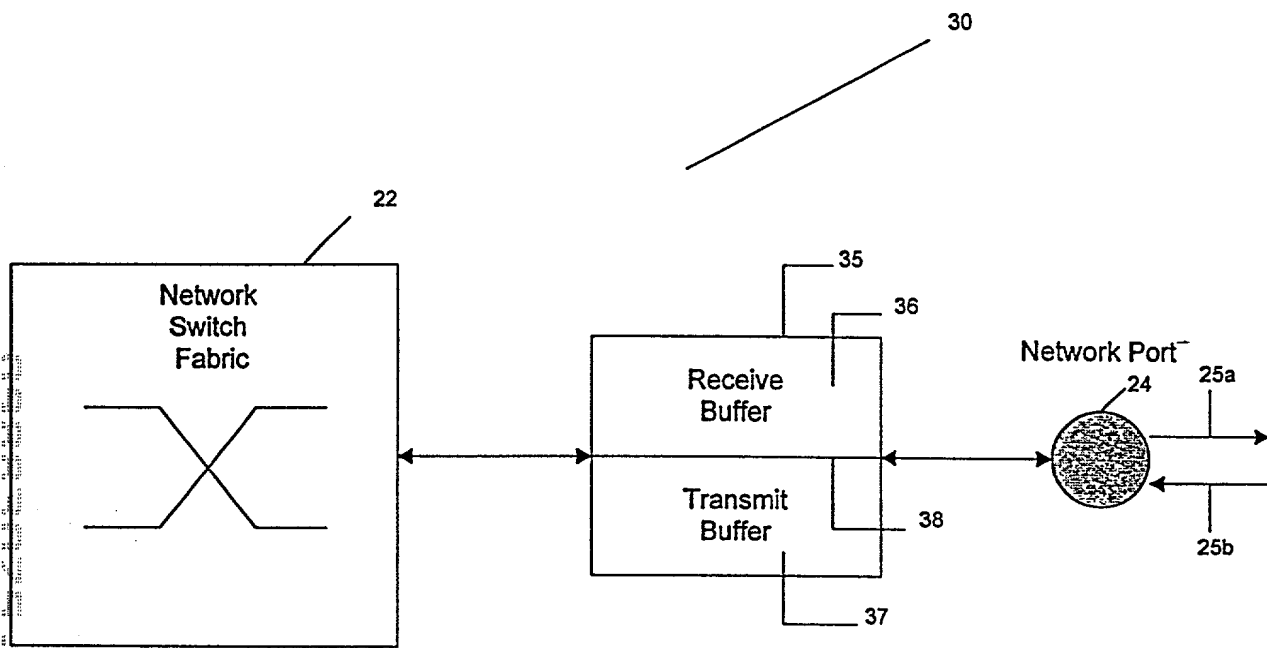


FIG. 3 (Prior Art)

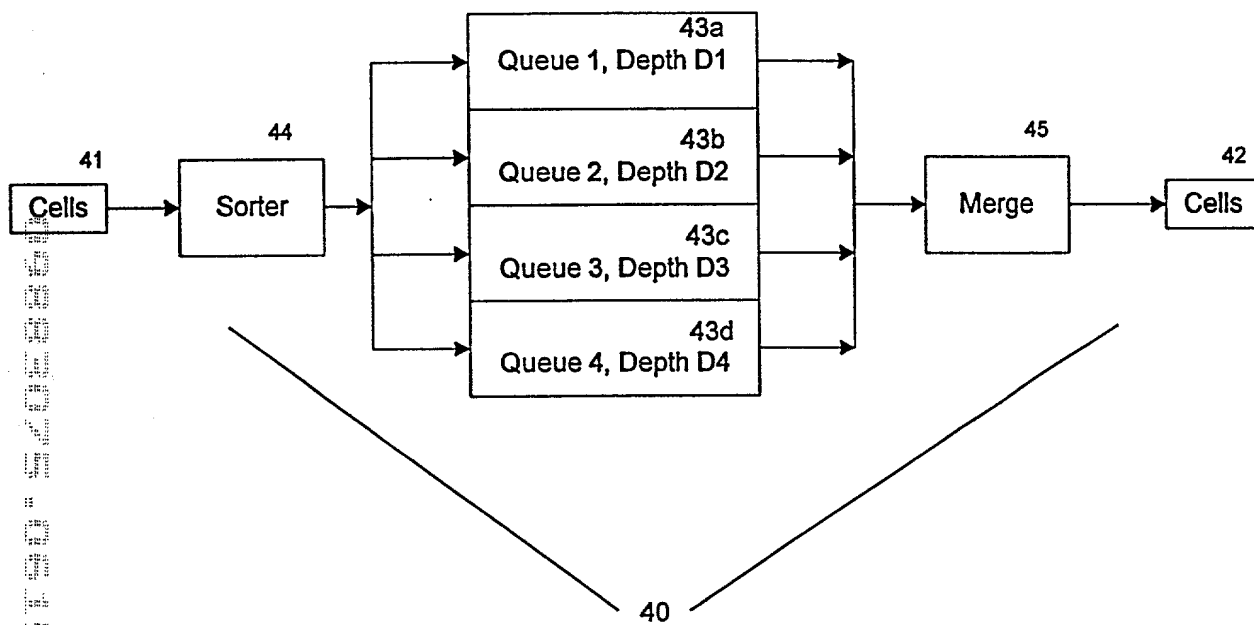


FIG. 4

50

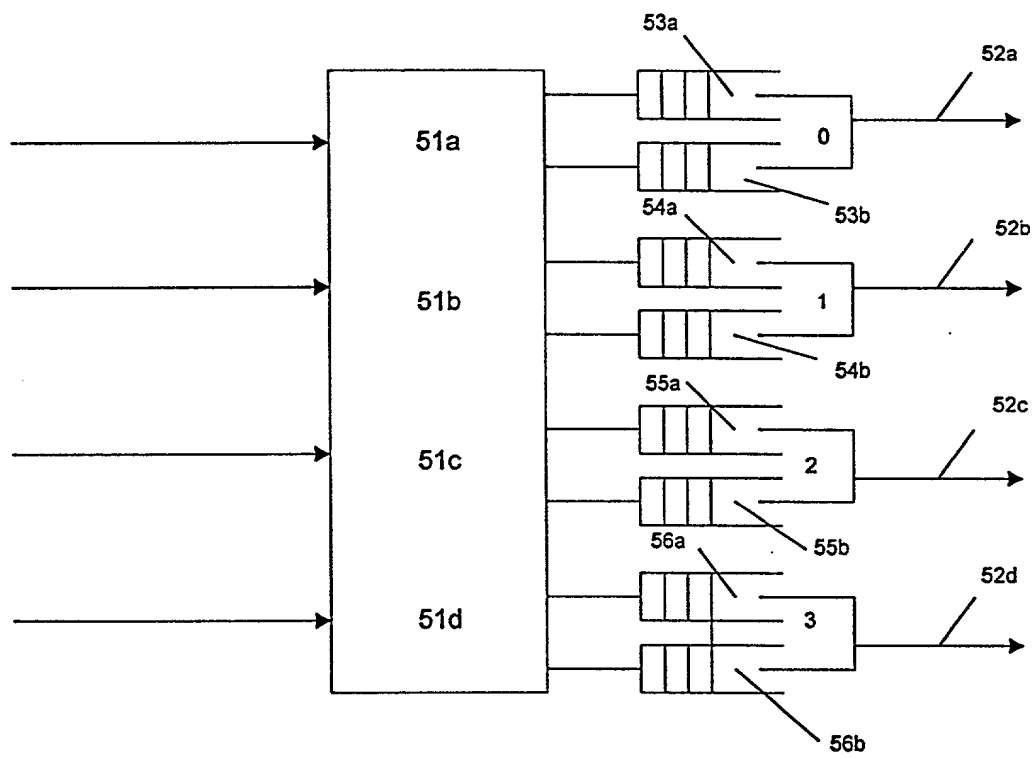


FIG. 5

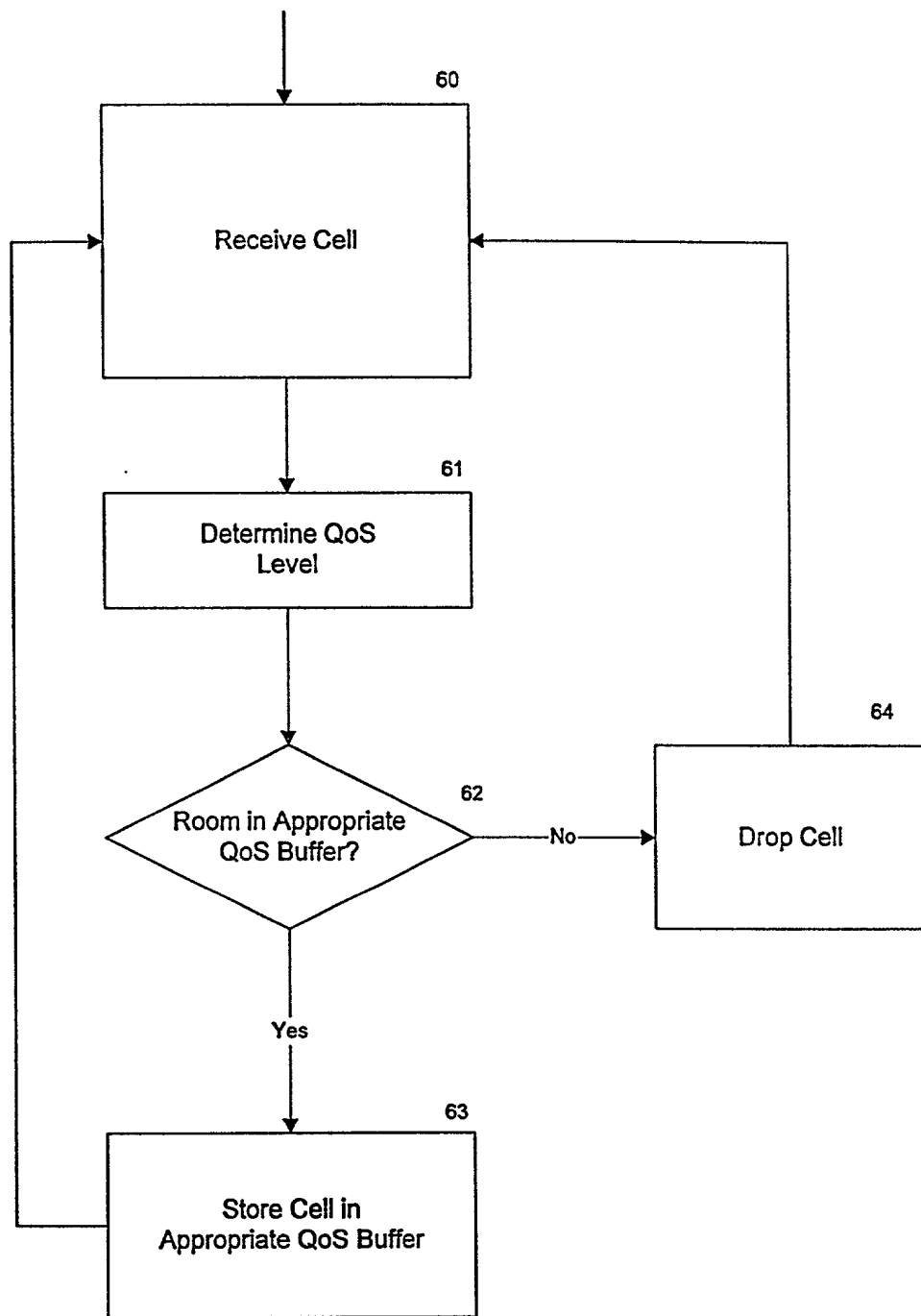


FIG. 6

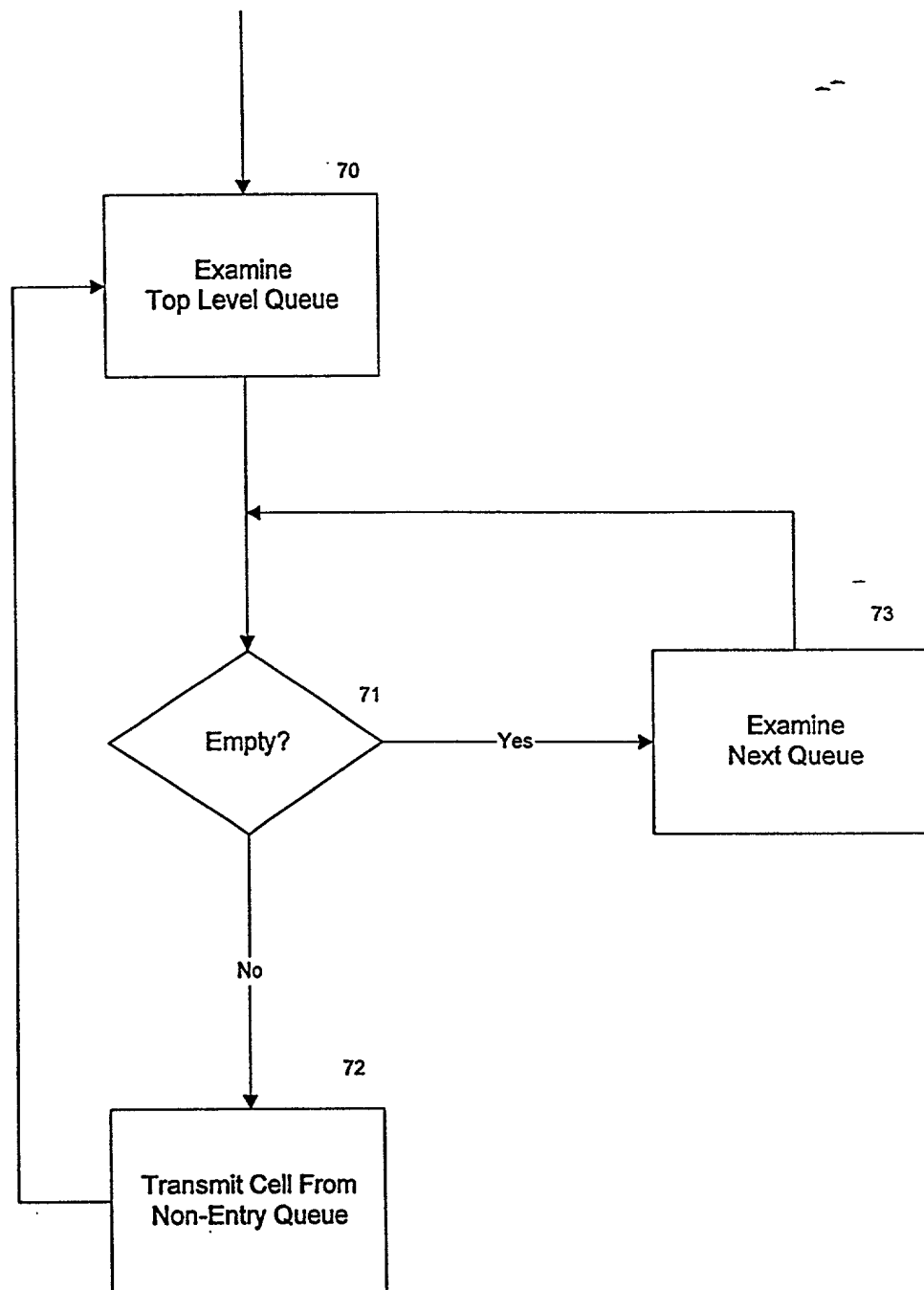


FIG. 7

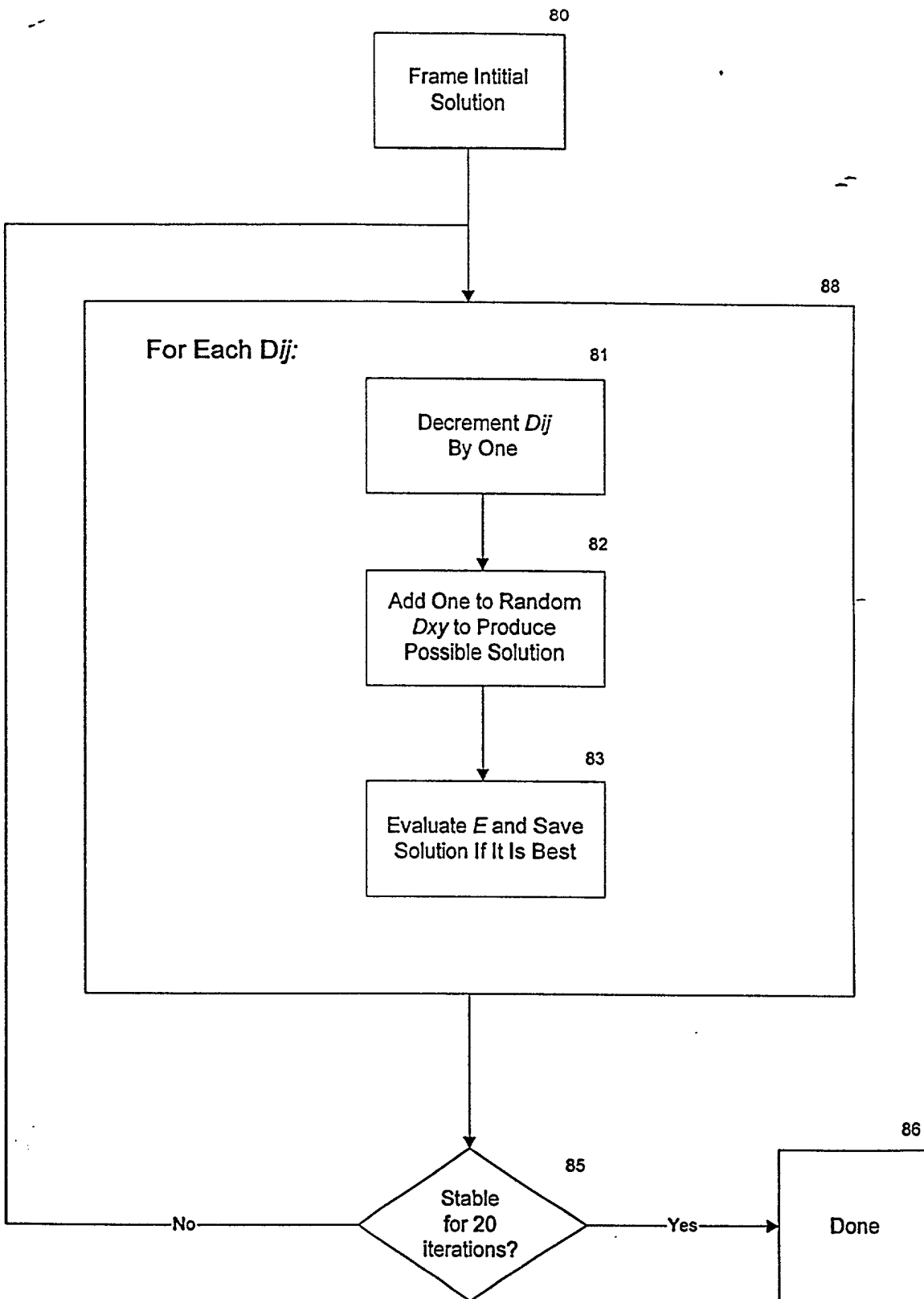


FIG. 8



90

File

Edit

View

Go

Bookmarks

History

Tools

Help

File

Edit

View

Go

Bookmarks

History

Tools

Help

Location:

file:///user/abbot/levia/dogz/sars/hold/qdo/installs/qdo.html

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Software

Queue Depth Optimizer (QDO)

Generate an input file by entering the data below:

Number of similar switches in switch fabric (N, default=1)

1

Number of input & output ports on each switch (M)

6

Number of QoS levels (K)

2

Total memory available in each switch (Mb)

100

Penalties for dropped cell on each QoS (P)

10.5

Enter K values, separated by a space e.g. "10 50"

10 50

Processing rates for each QoS (mu)

100 50

Arrival rates for each queue on every switch (lambda)

Documentation

General Description

The Queue Depth Optimizer (QDO) is a utility which adjusts the depth of queues in a switch (or switches) to minimize the cell drop rate (CDR) and cell wait time (CWT). The total cell queue depth is always equal to the total amount of available memory in the switch. Queue cells on each output port for each quality of service (QoS) level. The figure below illustrates an example of a switch.

Input

Two methods are available for giving input to QDO. The user may use a pre-generated input file, which can be uploaded to QDO, or the user may enter the data manually using the provided interface. In the file name box, if a file name is present in the file-name box, QDO will use this file for input. Otherwise, QDO will use the input provided in the text field. In either case, an input file will be generated and may be reviewed from the output page. This file may be saved for later use.

Figure 3. The Queue Depth Optimizer GUI

FIG. 9

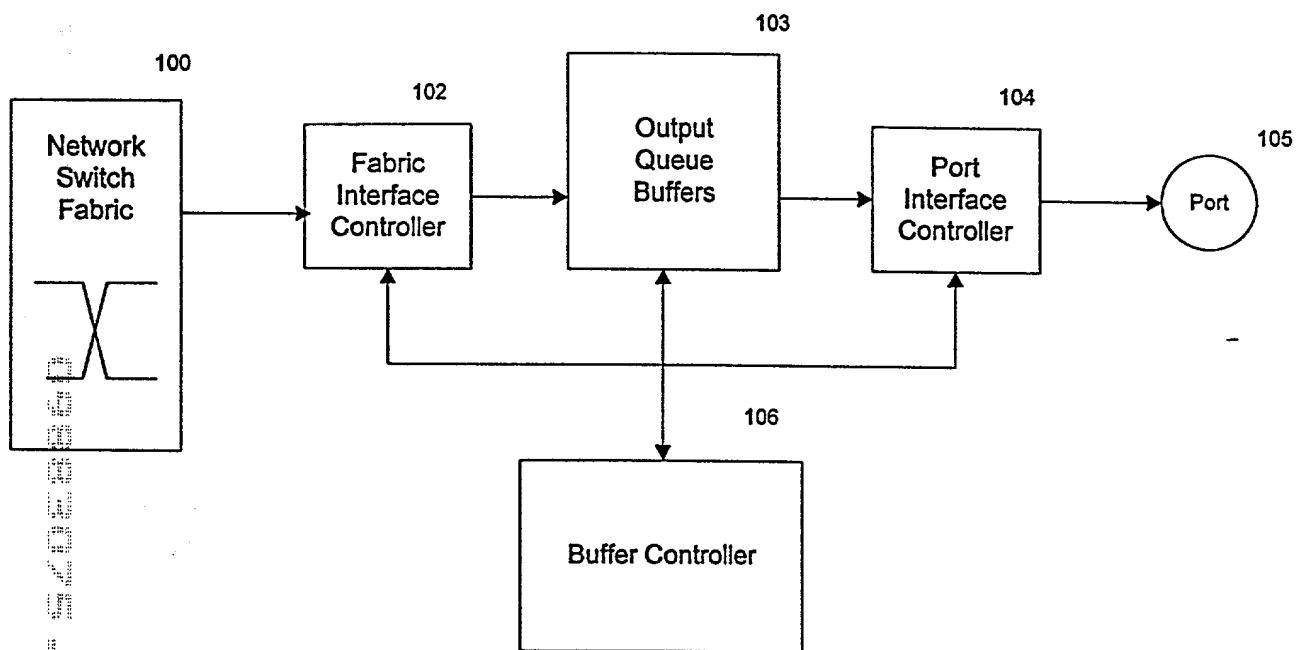


FIG. 10

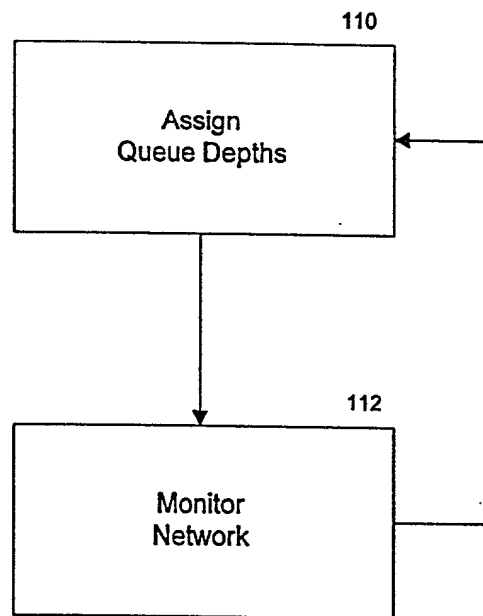


FIG. 11